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BACKGROUND FOR THE
AMENDMENTS TO
REGULATIONS 310 CMR 7.00
FOR THE CONTROL OF AIR POLLUTION
IN THE

BERKSHIRE AIR POLLUTION CONTROL DISTRICT
PIONEER VALLEY AIR POLLUTION CONTROL DISTRICT
MERRIMACK VALLEY AIR POLLUTION CONTROL DISTRICT
METROPOLITAN BOSTON AIR POLLUTION CONTROL DISTRICT
CENTRAL MASSACHUSETTS AIR POLLUTION CONTROL DISTRICT
SOUTHEASTERN MASSACHUSETTS AIR POLLUTION CONTROL DISTRICT

STATUTORY AUTHORITY
M.G.L. c. 111, Sections 142A through 142N

March 2007

I. BACKGROUND

Massachusetts General Laws, Chapter 111, Sections 142A-142N is the enabling legislation that gives MassDEP the authority to adopt regulations to prevent, control or abate conditions of air pollution to protect public health and welfare. The Commonwealth's regulations for the control of air pollution are promulgated at 310 CMR 7.00 "Air Pollution Control".

II. DISCUSSION

These amendments, which MassDEP is proposing to adopt and submit to US EPA as a State Implementation Plan (SIP) revision, are part of the effort to attain and maintain the health and welfare based National Ambient Air Quality Standards (NAAQS) for criteria pollutants. Several amendments correct typos or modify text to clarify intent. Specific changes include:

- Update the list of Massachusetts cities and towns to reflect changes in MassDEP regional boundaries
- Clarify the particulate emissions limits and maintenance/testing requirements to which engines and turbines are subject (310 CMR 7.02(8) and 310 CMR 7.04(4))
- Add a new organic material emission cap (<10 tons per year) to several sections of 310 CMR 7.03 to provide owners/operators of "small" facilities a mechanism to limit their facility's potential emissions.
- Corrections, updates of Source Registration (310 CMR 7.12) requirements
- Modify the Boiler – ERP requirements (310 CMR 7.26(30)-(36))

These amendments are discussed in greater detail below. A complete listing of the amendments is in the attached Proposed Amendments document.

Update list of Massachusetts' cities and towns

As an aid to users of the Air Quality Regulations, the applicable MassDEP Regional Office is identified for each city or town. MassDEP, in order to provide improved services to the regulated community and to improve the efficiency of its field operations, has reassigned a small number of communities to different MassDEP Regional Offices. A total of 21 communities across the Commonwealth are affected. The transfer of these cities and towns occurred in two phases, February 1, 2006 and May 1, 2006. The regulations are therefore being amended to reflect those changes as follows:

February 1, 2006

CERO to WERO: Athol, Hardwick, Petersham, Royalston and Warren

May 1, 2006

NERO to CERO: Medfield, Millis and Norfolk

CERO to NERO: Tyngsborough and Westford

SERO to CERO: Franklin

NERO to SERO: Braintree, Canton, Cohasset, Hingham, Holbrook, Hull, Norwood, Randolph, Walpole and Weymouth

CERO – Central Regional Office
NERO – Northeast Regional Office
SERO – Southeast Regional Office
WERO - Western Regional Office

Clarification of particulate matter (PM) limits for engines and turbines

Proposed revisions to 310 CMR 7.02(8)(c), (d), (e) and (h), exempt combustion turbines and reciprocating engines from the PM emission limits in Tables 4, 5 and 6. This exemption, which was in the regulations from 1972 – 2001, was mistakenly left out of the 2001 reorganization of the air regulations. The sentence accidentally removed qualified the emission limits established in the tables. The sentence was intended to clarify that; combustion turbines and reciprocating engines are not subject to the emission limits stated in the specified tables.

Addition of Organic Material emission cap to 310 CMR 7.03(15), (16), (19) & (25)

MassDEP is proposing to amend 310 CMR 7.03(15), (16), (19) and (25) by adding an optional organic material cap to below the applicability threshold of 310 CMR 7.12 Source Registration (in units of gallons used and tons emitted) per 12-month rolling period. Currently, an owner/operator of a facility covered by 310 CMR 7.03(15), (16) (19) or (25) must submit a limited plan application to establish a cap below the applicability of source registration; this submission requirement is contrary to the intent of 310 CMR 7.03, Plan Approval Exemption: Construction Requirements. The proposed amendment establishes a procedure for creating an emission cap below the applicability threshold of 310 CMR 7.12. Election of this lower cap by owner/operators of facilities covered by these regulations means some owners/operators are no longer subject to an annual air compliance fee.

Clarification of testing and maintenance requirements for engines and turbines

MassDEP is proposing a clarifying revision to the regulations to exclude combustion turbines and reciprocating engines from the annual inspection, maintenance and testing requirements of 310 CMR 7.04(4). When originally promulgated, this requirement was intended only for boilers to ensure proper operation and minimize smoking conditions. MassDEP had not intended that engines and turbines needed comply with this requirement.

Updates/corrections of 310 CMR 7.12

MassDEP is deleting a reporting requirement that should have been deleted in the February 2004 regulation amendment package. In the 2004 amendments MassDEP eliminated the annual reporting requirement for owner/operators of a facility with an emission cap pursuant to 310 CMR 7.02(11)(i) (50% cap) and overlooked the associated requirement at 310 CMR 7.12(2)(a)3. In addition, there are minor corrections to format and wording.

Modification of 310 CMR 7.26(30) – (37) - Boiler ERP

The proposed amendments will streamline the process for the owner/operator of the subject boiler and provide greater flexibility in the use of the allowed fuels. Key changes include:

- clarify applicability
- allow greater flexibility for dual fuel users (increase the distillate fuel use by 90 days during the heating season)
- enhance compliance/enforcement
- require cleaner fuels when available in 2007 and
- streamline the certification process

310 CMR 7.26(30) U Boiler Applicability

MassDEP proposes to amend the applicability section to allow an owner/operator to submit a plan application pursuant to 310 CMR 7.02(4) or (5) to install the boiler and establish or modify an existing emission cap, when the installation of a boiler otherwise subject to 310 CMR 7.26(30)-(37) would result in the facility being subject to the NSR, PSD or Operating Permit programs or exceed an existing emission cap. An owner/operator is also given the option to install the boiler in accordance with 310 CMR 7.26(30)-(37) where an emission cap is not exceeded or the owner/operator wishes to install a boiler which would trigger applicability to NSR, PSD or the Operating Permit program.

The proposed amendments will also exempt installation of a temporary boiler from the requirements of 310 CMR 7.26(30), provided the boiler is installed and operated in compliance with 310 CMR 7.03(23). Under most circumstances, a temporary boiler replaces an existing older boiler and results in no increase in emissions. Since there will be no increase in emissions in these cases, it is not necessary to require an operator to comply with the design and certification requirements for a temporary installation (less than 120 days).

310 CMR 7.26(31) Definitions

The proposed amendments revise the definition of Distillate Fuel Oil and add definition for Ultra-Low Sulfur Distillate Fuel Oil.

310 CMR 7.26(32) CERTIFICATION

Several significant changes are proposed under this section. First, MassDEP proposes to revise the initial certification from the owner/operator. The certification will be required prior to the installation of the emission unit to ensure proper classification of the facility as a result of the installation.

Second, MassDEP proposes to eliminate the annual certification requirement under 310 CMR 7.26(32)(b) for owners/operators of boilers subject to 310 CMR 7.26(30). ERP Boiler now requires the owner/operator to submit an initial certification (within 60 days of installation) and an annual certification thereafter. In addition, an owner/operator of a facility subject to ERP-Boilers is subject to 310 CMR 7.12 *U Source Registration*. MassDEP believes that a certification to the installation and design requirements of Boiler ERP, and the periodic Emission

Statement, is sufficient to track fuel type, quantity and emission data. Several ERP programs, such as the ERP- IWW Holding Tanks and the recently promulgated emergency engine and turbine regulations, require a one-time initial compliance certification. An owner/operator of a subject boiler will be required to submit only the one-time initial compliance certification and the periodic emission statement.

310 CMR 7.26(33) FUEL OF USE/EMISSION LIMITATIONS

MassDEP proposes to allow an additional 90 days to utilize the allotted gallons (90 days/yr X max firing rate in gal/hr X 24hr/day) of low sulfur distillate fuel oil use in dual fuel capable natural gas-fired boilers. This amendment, which is in effect until July 2007, will provide operators of ERP-boilers greater flexibility in dealing with potential fuel shortages and price variability. The air emission impact of burning more low sulfur distillate and less natural gas will be minimal.

After July 2007, the only distillate allowed under ERP-Boiler will be ultra-low sulfur diesel fuel (ULSD), sulfur content not in excess of 0.0015% by weight. To provide flexibility, it is proposed that all ERP boilers be allowed to use natural gas and ultra-low sulfur diesel fuel interchangeably, without restriction on the number of gallons of ULSD. MassDEP anticipates that ultra-low sulfur diesel fuel will be available in sufficient quantities.

310 CMR 7.26(34) OPERATIONAL REQUIREMENTS

MassDEP is proposing to eliminate the second tune-up for boilers burning low or ultra low sulfur distillate fuel oil as the primary fuel. Given the current financial incentives to maintain systems to minimize fuel consumption, the cleanliness of low and ultra low sulfur distillate fuel oil, the second tune-up is a financial burden on the owner/operator with no environmental benefit.

III. ECONOMIC IMPACTS

Most of the proposed amendments are administrative changes, resulting in little if any economic impact because they simply streamline, correct, or clarify existing regulations.

The proposed amendments to 310 CMR 7.26(30) – (37) will require boiler operators who use distillate to use only ultra-low sulfur fuel after July, 2007. The MassDEP believes ultra low sulfur diesel will be readily available before this date, but there may be an increase in fuel cost where higher sulfur content fuels would have otherwise been utilized. Prior to July 2007, the amendments allow owners operating boilers with dual-fuel capability an additional 90 days of low sulfur distillate use during the heating season which may reduce fuel costs. The added fuel flexibility may enable owners to negotiate less costly “interruptible” natural gas supply contracts with the gas companies. After July 2007, ultra-low sulfur diesel can be used interchangeably with natural gas.

IV. ENVIRONMENTAL IMPACTS

Most of the amendments clarify, reduce inconsistency/duplication, or streamline the requirements contained in the existing regulations. They will not have a significant environmental impact.

The primary impact of the ERP Boiler amendments will be to reduce the quantities of SO_x and particulates emitted after the required shift from low to ultra-low sulfur distillate fuel oil. Therefore, the proposed changes will have a beneficial environmental impact.

V. IMPACTS ON OTHER PROGRAMS

Toxics Use Reduction

Implementation of toxics use reduction is a Department-wide priority. Toxics use reduction is defined as in-plant practices that reduce or eliminate the total mass of contaminants discharged to the environment. These amendments are not expected to impact on that effort.

Air Toxics

In the past, air pollution control programs have focused on the six criteria pollutants: particulate matter, nitrogen oxides, sulfur dioxide, ozone, carbon monoxide, and lead. Recently concern has been raised over the components of air pollution that are not specifically regulated by programs developed to control criteria pollutants. These compounds are collectively known as air toxics. The health effects of air toxics are wide ranging and can vary from long-term carcinogenic effects to short-term adverse health effects.

The CAA requires the EPA to promulgate control strategies for sources of toxic air emissions. The Department intends to implement those standards as promulgated by the EPA. Until that time, the Department will generally control air toxics through programs aimed at controlling the traditional criteria pollutants. In so far as these proposed amendments further limit emissions of CO, VOC and NO_x, they also limit emissions of air toxics.

Impacts on Cities and Towns (Proposition 2 1/2)

Pursuant to Executive Order 145, the Department must assess the fiscal impact of new regulations on the commonwealth's municipalities. The Executive Order was issued in response to Proposition 2 1/2. MGL c. 29 § 27C(a) that requires the state to reimburse municipalities for costs incurred as a consequence of new state laws and regulations.

The proposed changes to this regulation provide more flexibility to the municipalities with regards to the approved fuels of use. Prior to July 2007, there is an additional 90 days of use of

low sulfur distillate during the heating season when gas supplies may be limited and more expensive.

MEPA

This proposed action is "categorically exempt" from the "Regulations Governing the Preparation of Environmental Impact Reports", 301 CMR 11.00, because the proposed amendments will result in an overall increase in emission controls. All reasonable measures have been taken to minimize adverse impacts.

Agricultural Impacts

Massachusetts General Laws, Chapter 30A, Section 18 requires state agencies to evaluate the impact of proposed programs on agriculture within the Commonwealth. As the proposed amendments affect only industrial facilities, the Department has determined that the proposed regulations will have no adverse impact on agriculture in Massachusetts. The only impact on agriculture will be beneficial, as the program will help Massachusetts to attain the NAAQS for ozone, thus lowering crop damage attributable to high ozone concentrations in the summer.

VI IMPLEMENTATION

These amendments are not expected to add significantly to the Department's workload since the majority of the changes clarify or correct the existing regulations. Where they add additional requirements, the amendments generally upgrade the enforceability of the regulations

VI PUBLIC PARTICIPATION

As required by M.G.L. c 30A, the Mass DEP gives notice and provides the opportunity to review background and technical information at least 21 days prior to proposing the regulation amendments at a public hearing. To assure more adequate notice for processing a rule as an amendment to the SIP, formal notice will be issued 30 days before the public hearings which will be held: March 21, 2007 in Springfield and March 20, 2007 in Boston. The hearing record will be kept open until the close of business on March 23, 2007.